



August 15, 2016

AGRICULTURAL WASTE MANAGEMENT FIELD HANDBOOK (NEH PART 651)
210 - ENGINEERING
NOTICE WI-50

SUBJECT: ENG – National Engineering Handbook (NEH), Part 651, Agricultural Waste Management Field Handbook (AWMFH).

Purpose. Add newly approved waste storage tank provider.

Explanation of Changes. Inserted pages 10-WI-23 and 10-WI-24, TC Agristorage waste storage tank from the Tank Connection Affiliate Group.

Filing Instructions (AWMFH):

Remove:

Directive Tabulation Sheet dated March 2016

Insert:

Directive Tabulation Sheet dated August 2016

Pages 10-WI-23 – 10-WI-24

Wisconsin supplements and transmittal notices for the AWMFH can be found on the Wisconsin NRCS website at <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/wi/technical/engineering/>.

JIMMY BRAMBLETT
State Conservationist

Attachments

DIRECTIVE TABULATION SHEET

Title No. 210

**Directive Name/Type: Agricultural Waste Management Field Handbook
Wisconsin**

Directive Number	Issue Date	Part, Subpart, Pages, etc., or Bulletin Subject
WI-1	9/8/1992	Issues interim instructions for filing previous AWMFM WI supplements.
WI-2	11/3/1992	Instructions for filing AWMFM supplements.
WI-3	3/18/1994	Superseded by WI-14.
WI-4	10/11/1994	Canceled by National Revision.
WI-5	2/1995	Superseded by WI-18.
WI-6	2/1995	Superseded by WI-35.
WI-7	2/1995	Superseded by WI-20.
WI-8	2/1995	Superseded by WI-20.
WI-9	2/1995	Canceled by WI-25.
WI-10	2/1995	Superseded by WI-20.
WI-11	2/1995	Superseded by WI-35.
WI-12	2/23/1995	Change Notices 5-11, correct Notice 3.
WI-13	4/20/1995	Chapter 1 DATCP-DFS Regional Offices map.
WI-14	2/12/1999	Chapter 13, Manure Storage Safety, ASAE Publication.
WI-15	3/1/1999	Superseded by WI-18.
WI-16	3/16/1999	Chapter 13 Documents Reissued due to copy problems.
WI-17	4/15/1999	Chapter 16 USGS Fact Sheet on Barnyards.
WI-18	10/06/1999	Superseded by WI-25.
WI-19	1/13/2000	Superseded by WI-35.
WI-20	12/11/2001	Superseded by WI-45.
WI-21	1/23/2002	Superseded by WI-45.
WI-22	2/14/2002	Superseded by WI-25.
WI-23	5/12/2003	Superseded by WI-25.
WI-24	4/14/2004	Superseded by WI-25.
WI-25	1/26/2005	Superseded by WI-43.
WI-26	10/3/2005	Superseded by WI-29.
WI-27	12/1/2005	Superseded by WI-43.
WI-28	11/20/2007	Superseded by WI-29.
WI-29	8/1/2008	Chapter 10, Revised Companion Documents 635-1 through 4 (Companion Documents 635-1 through 3 Superseded by WI-30). Companion Document 629-1. (Superseded by WI-34).
WI-30	11/26/2008	Chapter 10, Revised Companion Documents 635-1 through 3.
WI-31	4/16/2009	Superseded by WI-43.
WI-32	5/14/2009	Chapter 10, Remove Companion Document 635-4.

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Title No. 210

**Directive Name/Type: Agricultural Waste Management Field Handbook
Wisconsin**

Directive Number	Issue Date	Part, Subpart, Pages, etc., or Bulletin Subject
WI-33	11/2/2012	Chapter 10, Companion Document 634.
WI-34	11/6/2012	Chapter 10, Companion Document 629-1.
WI-35	1/14/2014	Superseded by WI-44.
WI-36	2/6/2014	Superseded by WI-47.
WI-37	2/10/2014	Superseded by WI-40.
WI-38	2/21/2014	Superseded by WI-47.
WI-39	2/26/2014	Superseded by WI-41.
WI-40	3/24/2014	Superseded by WI-47.
WI-41	10/3/2014	Superseded by WI-47.
WI-42	2/13/2015	Superseded by WI-47.
WI-43	2/25/2015	Chapter 10, All Standard 313 Companion Documents revised.
WI-44	9/21/2015	Chapter 10, Corrected animal lot space guidelines.
WI-45	1/4/2016	Chapter 9, Removed pages WI-9-1 thru WI-9-9.
WI-46	1/5/2016	Chapter 10, Insert pages 10-WI-i and 10-WI-3.
WI-47	1/28/2016	Chapter 10, Updates to the Pre-Engineered Waste Storage Facility Information.
WI-48	2/10/2016	Chapter 10, Updates to 10-WI-3, Expansive Waterstop Summary.
WI-49	3/23/2016	Chapter 10, Insert pages 10-WI-21 and 10-WI-22, Tiry Engineering Composter.
WI-50	8/15/2016	Chapter 10, Insert pages 10-WI-23 and 10-WI-24, TC Agristorage from the Tank Connection Affiliate Group.

TANK CONNECTION AFFILIATE GROUP

**Designer,
Manufacturer, and
Supplier**

Tank Connection Affiliate Group
Parsons, Kansas

Product Name:

TC Agristorage

**Drawings and
Installation Manual:**

This storage facility has been accepted as a one-at-a-time design. Tank Connection Affiliate Group will provide design and structural drawings for a storage tank that is specific to the client's need for storage volume and site conditions. These structural drawings must be included in a site-specific construction plan prepared and approved by an engineer licensed in Wisconsin.

An installation manual will be available for viewing on the site.

Tank Connection Affiliate Group will be assuming all responsibility for the compliance of the TC Agristorage with the structural and foundation requirements of NRCS Standard 313. The following statement on the cover sheet of each submittal package will be sufficient to document the certification of the tank design, along with the stamp of the Tank Connection Affiliate Group engineer licensed in Wisconsin:

"The design in this submittal package complies with the NRCS Waste Storage Facility Standard (Code 313) criteria for fabricated structures, including foundation, liquid tightness, structural loadings, structural design, and slabs on grade."

Materials:

The structure shell consists of bolted steel sheets, Rolled Tapered Panel (RTP) Design with LIQ Fusion 7000 Interior Coating.

The footing walls and floor slab are to be a minimum 4000 psi concrete in accordance with Wisconsin Construction Specification 4, Concrete.

Cathodic protection is not required.

Foundation sheets have an adhesive backed hydrophilic sealant strip provided as a secondary seal from the ring to concrete floor. This sealant may also be used for sealing pipe penetrations through the concrete floor.

**Design
Assumptions:**

1. The steel shell design complies with all criteria for loadings as stated in Standard 313.
2. The tank may also be provided with a roof.
3. The final concrete floor slab reinforcement will be determined by the designer based on the tank diameter to be constructed. Most slabs will be reinforced to allow a monolithic concrete pour.
4. The soil bearing capacity is a minimum of 2500 psf or the bearing strength required in the design. The soil bearing capacity at the site will be determined by an engineer from, or retained by Tank Connection Affiliate Group.

Product Use:

The design and drawings must be incorporated into a site-specific construction plan prepared and approved by a WI licensed engineer or agency staff. The preparer of the construction plan is responsible for siting the structure in compliance with WI Standard 313, affirming the foundation soils meet the bearing pressure required in the design, and providing the design and construction drawings for a waste transfer system in compliance with WI Standard 634.

The Tank Connection Affiliate Group licensed engineer who certified the design will also certify that the completed installation meets the manufacturer's plans and specifications, based on the certification of the trained dealer who performed the installation. The following statement will suffice to document the certification of the tank installation, along with the stamp of the WI licensed engineer:

"To the best of my professional knowledge, judgement, and belief the storage tank has been installed in accordance with the construction drawings and specifications and meets the Wisconsin NRCS Waste Storage Facility Standard (Code 313) criteria for fabricated structures and the applicable provisions of Wisconsin Specification 4, Concrete."

The person who approved the site construction plans is responsible for construction approval of the project utilizing the Tank Connection Affiliate Group storage structure.

**Review and
Acceptance:**

The NRCS State Conservation Engineer in Illinois reviewed submittals by Tank Connection Affiliate Group previously and accepted the design model in a letter dated December 18, 2013. The State Conservation Engineer in Wisconsin concurred in that acceptance by letter dated February 21, 2014.

The NRCS State Conservation Engineer in Wisconsin reviewed current submittals by Tank Connection Affiliate Group and accepted the "one-at-a-time" design model in a letter dated August 12, 2016.